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4808 Fifth Ave., Pittsburgh 13, Pa.

Owned and Published by the Pennsylvania State Dental Society

RAY COBAUGH, *Business Manager*, 217 State St., Harrisburg, Pa.

The JOURNAL is published nine times a year; no issues in July, August, and September. Publication office: 217 State St., Harrisburg, Pa. Subscriptions $2.00 per year; single copies, twenty-five cents. Advertising rates on application to the business manager. Entered as second class matter at the Post Office, Harrisburg, Pa., under the act of August 24, 1912. Manuscripts and communications pertaining to the textual contents of the JOURNAL should be sent to the editor. "The Pennsylvania State Dental Society, although formally accepting and publishing reports of the various standing committees and essays read before the Society [and its components], holds itself wholly irresponsible for opinions, theories and criticisms, therein contained, except when adopted or sanctioned by special resolutions." Copyright 1951 by the Pennsylvania State Dental Society.

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Dental Practice in Western Pennsylvania

ANTONIO CIOCCO, SC.D.,[1] ISIDORE ALTMAN, M.S.,[2] AND ISAAC SISSMAN, D.D.S.[3]

INTRODUCTION

IN THE recent estimates made by the Health Resources Advisory Committee of the National Security Resources Board (now of the Office of Defense Mobilization) regarding the requirements for dentists in a period of mobilization, it was assumed that at present there is equilibrium between the supply and demand for dentists' services.[1] The Odontological Society of Western Pennsylvania has sought to determine the validity of such an assumption for this area by querying the local dentists concerning their patient load and their capacity to increase it. At the request of the Society, the Department of Biostatistics of the Graduate School of Public Health, University of Pittsburgh, assisted in the preparation of a questionnaire and undertook the analysis of the returns.

Although this study had a limited objective, namely, the ability of dentists in this area to assume additional patients, the authors feel that it illustrates how probing for facts will save much time and energy in the discussion of such controversial points as the over-supply or shortage of dentists and other health personnel. This study was not planned to obtain information on the broader issues of long-time supply and demand problems, but it should point out that there are ways and means by which such information can be obtained provided there is willingness to do so.

MATERIAL AND METHOD

A questionnaire was sent to approximately 1,500 dentists, of whom 1,200 were members of the Odontological Society, practicing in the nine counties covered by the Society: Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Washington, and Westmoreland. This area contains over 2,700,000 persons, according to the 1950 Census.

The questionnaire itself, which is reproduced as Appendix A, covered the week May 7-May 13, 1951. It asked first for the hours in the office this week, at chairside, laboratory and other work, including number of free hours. Question 2 asked for hours in professional activities outside the office, Question 3 for the total number of visits by patients. Question 4 (a), a very important question on additional patients, was as follows:

"(a) Could you have seen more patients without reducing the quality or quantity of services rendered to the patients that were seen?————

"If yes, how many more?————"

In Question 7, which was allied to this one, the dentist was asked how soon he could see new patients—in one week, two weeks, a month, or not at all within this period.

The remaining questions covered characteristics of the dentist with which the answers to the above questions were likely to be associated—employment of assistants or hygienists, number of dental chairs, place of practice, year of birth, and whether in general or special practice.

To preserve anonymity and induce a greater response, no signature was requested of the respondents. This makes possible only a rough estimate of the representativeness of the 632 dentists who

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replied. If we suppose that the replies came principally from members, of which there are some 1,200 practicing in the area, we can say that about 50 per cent of the membership who are in active private practice filled out and returned the questionnaire. In the light of other experiences with mailed questionnaires, this can be considered a high rate of return.

Table 1a shows the distribution by age and Table 1b the distribution by place of practice of those who received the questionnaire and of those who replied. The table shows the latter number to be 632. Succeeding data are based on somewhat smaller numbers, depending on how many dentists supplied information on the particular question.

The age distribution of the replying dentists compares favorably with that of the total profession, although there were more young men and fewer older men in the replying group. This greater tendency on the part of the younger men to reply was also observed in the 1950 Survey of the Dental Profession.[2]

The percentage distribution of replies by place of practice corresponds closely with that of the profession: 66.9 per cent of the practitioners in this area are in Allegheny County while 65.3 per cent of the replies came from there. The distinction between inside and outside Pittsburgh shown on the questionnaire cannot be used here for analysis because the lists of the dental society are maintained on a postal zone basis which covers many units politically independent of Pittsburgh proper.

CHARACTERISTICS OF PRACTICE

The main portion of this paper will concern itself with questions related to

TABLE 1. PERCENTAGE DISTRIBUTION OF ALL DENTISTS IN AREA AND OF DENTISTS REPLYING TO QUESTIONNAIRE

a. BY AGE (YEARS)

Dentists	*Under 35*	*35-44*	*45-54*	*55-64*	*65 and over*	*Total*	*No. of dentists*
Receiving questionnaire	9.0	17.4	41.3	18.7	13.6	100.0	1485*
Replying to questionnaire	12.7	21.8	43.8	14.6	7.1	100.0	632

* Distribution based on 1,394 dentists of known age.

b. BY GEOGRAPHIC DISTRIBUTION

Dentists	*Allegheny County*		*Other than Allegheny County (pop.)*				*Total*
	Pgh. office buildings	*Elsewhere in the county*	*over 25,000*	*10,000-25,000*	*5,000-10,000*	*5,000 or less*	
Receiving questionnaire ...	22.9	44.0	4.6	13.6	7.1	7.8	100.0
Replying to questionnaire ..	22.1	43.2	4.8	16.9	6.1	6.9	100.0

the ability or willingness of dentists to increase their patient load. But first, certain general characteristics of practice in this part of the state will be described and compared with the findings of the American Dental Association 1950 Survey of the Dental Profession.

In the latter study, a far lengthier questionnaire than the one employed here was sent to a sample of 20,000 dentists throughout the country. Replies were received from over 4,000, or better than 20 per cent. The week for which the dentists were asked to supply data was April 16-22 (1950). This is quite comparable seasonally to the date May 7-13 of the present study.

Table 2 shows, for both studies, the average number of hours spent in the office during the week and the hours at chairside and other activities. The marked similarity between the two sets of data can be noticed at once. The pattern of how much time dentists devote to the office and to activities within the office is apparently the same, and it is doubtful that the slightly greater time noted by Western Pennsylvania dentists is really meaningful. There was little variation within the present study from one type of community or place of practice to another.

It is worth pointing out here that the findings of both these studies are similar to those of Klein,[3] who found that in February 1942 dentists spent 46.9 hours in the office and 34.3 hours at the chair. By the corresponding week in 1943, when a substantial number of dentists had joined the armed forces, civilian dentists were spending 50.0 hours in the office and 37.7 hours at the chair.

A complementary question in the study reported here, which was not included in the ADA survey, concerned the dentist's professional activities outside the office, i.e., in clinical work, teaching, or other pursuits. The average amount of time per dentist proved to be rather

TABLE 2. AVERAGE NUMBER OF HOURS IN OFFICE DURING ONE WEEK BY TYPE OF ACTIVITY: PRESENT STUDY AND ADA SURVEY

Activity	*Present study*	*ADA survey*
TOTAL	43.9	42.2
At chair treating patients	34.5	33.0
Laboratory	4.9	3.8
Other work	1.0	2.2
Free hours	3.5	3.2

small: 1.2 hours in clinical work at schools and hospitals, 0.8 hour in teaching, and 0.5 hour attending meetings, postgraduate courses, and the like. However, there is a small number of practicing dentists who devote a considerable amount of time to outside work and teaching. One hundred twenty-eight dentists, 21.3 per cent of the total, who did some outside clinical work during the week averaged 5.5 hours in this activity; the 33 dentists, 5.5 per cent of the total, who did some teaching reported an average of 14.3 hours.

If the findings of the ADA survey on the employment of ancillary personnel are representative of the profession as a whole, then the dentists of this area are somewhat deficient in this respect. Forty-nine per cent of them stated they employed one or more assistants, and the dental hygienists reported were negligible, whereas in the ADA survey 64 per cent of the dentists reported they employed one or more assistants on a full-time basis and 5 per cent reported the employment of dental hygienists. About a fourth of the Western Pennsylvania dentists, usually from among those who employed an assistant, reported that they used more than one dental chair.

NUMBER OF VISITS BY PATIENTS

Since only 31 of the replying dentists classified themselves as specialists, the

data on patient load will be limited to general practitioners. Patient load is defined in this paper as number of visits or sittings.

The average number of patient-visits reported was 57.0. This is very similar to the finding in the ADA survey, 56.0, and to Klein's 1942 figure of 55.3. The variation in averages between different types of communities was, however, marked:

Community	*Average No. of patient-visits*
ALLEGHENY COUNTY:	
Medical office buildings, Pgh.	45.4
Elsewhere in Pittsburgh	60.2
Outside of Pittsburgh	59.8
OTHER THAN ALLEGHENY COUNTY:	
25,000 and over	62.7
10,000 to 25,000	59.1
5,000 to 10,000	50.3
Under 5,000	64.6

The patient load for each age group was as follows:

Age of dentist (years)	*Patient-visits*
Under 35	60.0
35-44	63.8
45-54	59.0
55-64	44.6
65 and over	31.8

These age differences agree well with the findings of the ADA survey and with Klein. On the average, practicing dentists, and this is true of physicians as well, reach a peak in their patient load somewhere between the ages of 35 and 44. The decline that follows seems to be fairly rapid, a fact of extreme importance when the civilian welfare has to be considered in times of mobilization of the younger dentists.

The ADA survey found, as have other studies, that dentists who employ assistants or hygienists see more patients on the average than those who do not. Such was also the case here. Dentists employing auxiliary help saw 40 per cent more patients than the group without employees. But which is cause and which is effect is hard to say. Does a dentist employ help because of the pressure of numbers of patients, or does the assistant, making it possible for him to handle more people per unit of time, permit him to book more appointments? The answer may well be that both are true.

More patients were seen when the dentist had additional dental chairs. But no clear-cut interpretation of the findings can be made since the dentists who used more than one chair tended also to have assisting personnel.

TABLE 3. PERCENTAGE DISTRIBUTION BY AGE OF DENTISTS WHO COULD SEE ADDITIONAL PATIENTS DURING STUDY WEEK AND DENTISTS WHO COULD NOT

Age (years)	*Could have seen more patients*		*Per cent in age group who could see more patients*
	Yes	*No*	
Under 35	15.9	10.0	52.1
35-44	20.2	24.8	35.9
45-54	41.6	47.8	37.5
55 and over	22.3	17.4	46.8
All ages	100.0	100.0	40.7
Number of dentists	233	339	572

CAPACITY TO SEE MORE PATIENTS

As indicated above, the primary purpose of the study was to determine the situation which exists in this area with respect to the demand for dental services and the ability of practicing dentists to assume additional patients. That the answer has important implications for a policy on dental manpower with respect to defense and mobilization efforts goes without saying.

To the question whether more patients could have been seen during the study week, 233 of the general practitioners said *Yes* and 339 *No*. (For brevity's sake, the two groups will be referred to from this point on as the *Yes* and *No* groups, respectively.) Thus, the majority, i.e., 60 per cent of the dentists, indicated an inability to see additional patients. Forty per cent of the dentists stated that they could have seen more patients "without reducing the quality or quantity of services rendered to the patients that were seen."

The distribution of both groups by age is shown in Table 3, and their distribution by type of place in Table 4. Proportionally, there were more men under 35 years and 55 years and over in the *Yes* group than in the *No* group. In terms of the respective age groups, 52 per cent of all dentists under 35 years and 47 per cent of the group 55 years and over said yes to the question. For the former, this percentage is very likely a reflection of the difficulties confronting a beginning practitioner. In the case of the latter group, it may be that this answer is a consequence of declining practice with increasing age. In the age groups, 35-54 years, 37 per cent of the dentists said yes, while 63 per cent could not see additional patients.

Table 4 shows the percentage in the *Yes* group to be about the same throughout Allegheny County and in the middle-sized communities outside Allegheny County. These places account for all but about 12 per cent of the dentists. The

TABLE 4. PERCENTAGE DISTRIBUTION BY PLACE OF PRACTICE OF DENTISTS WHO COULD SEE ADDITIONAL PATIENTS DURING STUDY WEEK AND DENTISTS WHO COULD NOT

Place of practice	*Could see more patients*		*Per cent in place of practice who could see more patients*
	Yes	*No*	
Allegheny County:			
Medical office buildings, Pgh.	21.0	17.1	45.8
Elsewhere in Pittsburgh	20.6	16.5	46.2
Outside of Pittsburgh	28.8	26.0	43.2
Other than Allegheny County:			
25,000 and over	1.3	7.7	10.3
10,000 to 25,000	17.6	17.4	41.0
5,000 to 10,000	8.1	5.0	52.8
Under 5,000	2.6	10.3	14.6
All places	100.0	100.0	40.7
Number of dentists	233	339	572

low percentages saying yes in the communities of 25,000 population and over and under 5,000 may be related to the higher patient load in these places.

As might be expected, the two groups differed with respect to other characteristics. The *Yes* group reported an average of 0.3 assistant and 1.2 chairs per dentist, while the *No* group had 0.6 assistant, or twice as many, and 1.3 chairs. The *Yes* group had an average of 7.9 free hours in the office during the study week while the *No* group reported only 0.7 hour. With respect to the question of how soon a new patient could be seen the results were as follows:

Could see new patient within—	*Percentage distribution*	
	Yes group	*No group*
One week	87.1	23.6
Two weeks	11.6	38.3
Month	1.3	25.1
Could not see new patient within month	...	13.0
TOTAL	100.0	100.0

The *Yes* group was on the whole consistent in its replies in that it clearly demonstrated its capacity and willingness to accept new patients. The *No* group was not as definite since 24 per cent could see new patients within a week, and 38 per cent within two weeks. On the other hand 13 per cent of them would not take new patients in a month and 25 per cent indicated that new patients would have to wait at least two weeks to a month.

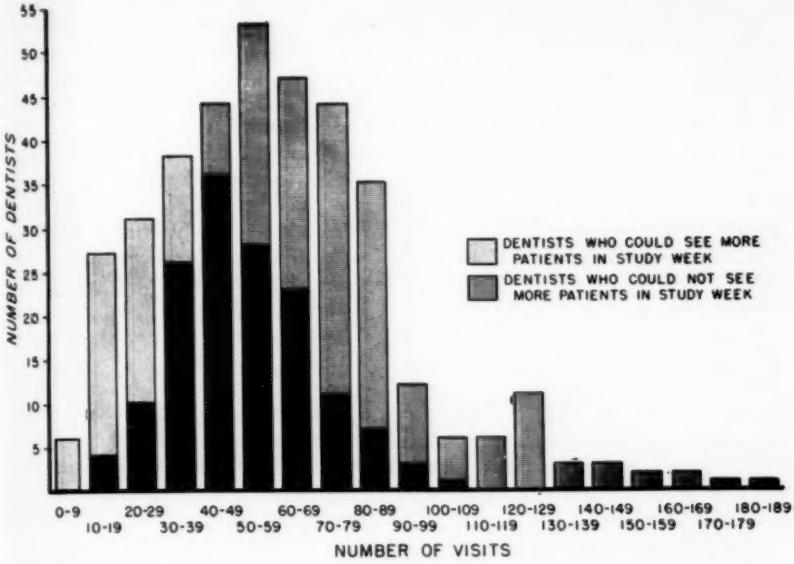
There were differences in patient load between the *Yes* and *No* groups. The averages are shown for each age group in Table 5. Average number of patients seen by the *No* group, 67.5, was 63 per cent greater than that of the *Yes* group, 41.4. Disparities of like order occurred in each of the age groups.

Figure 1 has been prepared to show how the two groups were distributed according to number of patients seen; i.e., Figure 1 presents for each group the number of dentists with specified patient load. The two distributions are quite distinct, and a statistical test (chi square) shows that the chance is less than one in a million that the two distributions could have come from the same universe of dentists.

One interesting aspect of the two distributions is the over-lap. Among dentists with the same patient load some indicated that they could not see more patients, others that they could. Among the dentists who said yes, 10.4 per cent had patient loads equal or higher than the average of those who said no. Among those who said no, 14.8 per cent had a patient load equal to or less than the average of the dentists who said yes.

TABLE 5. COMPARISON OF PATIENT LOAD OF DENTISTS WHO COULD SEE ADDITIONAL PATIENTS IN STUDY WEEK WITH THOSE WHO COULD NOT

Age of dentist (years)	*Average number of patients, May 7-13*		*Ratio of No group to Yes group (=1)*
	Dentists who could see more patients	*Dentists who could not see more patients*	
Under 35	42.8	78.8	1.84
35-44	45.9	72.8	1.59
45-54	44.8	67.8	1.51
55-64	32.1	56.7	1.77
65 and over	21.9	38.6	1.76
All ages	41.4	67.5	1.63



DISTRIBUTION OF DENTISTS ACCORDING TO NUMBER OF PATIENTS

FIGURE 1

The dentists were also asked how many more patients they could have taken if they had not achieved their maximum. The dentists in the *Yes* group to whom this question applied said that they could have seen on the average 15.4 more patients. This would have meant for them a total of 56.8 patients in a week, which, it is important to observe, coincides with the over-all average of 57.0 patients.

SUMMARY AND DISCUSSION

The major pertinent findings of this survey seem to be:

1. The average weekly patient load of dentists in Western Pennsylvania in 1951 is substantially the same as that observed for the country as a whole in 1950. Fewer dentists in this area have dental assistants than in the country as a whole.

2. Approximately 60 per cent of the dentists state that they are working to their desired capacity. However, among dentists under 35 and above 55 years, the percentage is about 50.

3. The patient load of dentists who have achieved their desired capacity is about two-thirds higher than the patient load of those who have not.

4. The additional patients that could be seen by the dentists who have not achieved their desired maximum would bring their patient load to the average observed for Western Pennsylvania.

Consideration of these findings leads, first, to the expected conclusion that, as all human beings, dentists differ in their behavior, including their capacity to work. Among general practitioners with about the same patient load, many considered themselves fully busy and many did not; what is a full quota for some is not necessarily a full quota for others. The basis of such differences in behavior is in itself deserving of study.

With regard to the main issue under discussion, the evidence would seem to indicate that there is the same demand for dental services as is generally found in periods of prosperity. Furthermore, the present average weekly patient load of 57 visits is about the limit to which dentists who can see more patients are willing to go. The fact that 40 per cent of the dentists are not working to capacity is apparently balanced by the high patient load of the remaining 60 per cent.

The additional patients that the former said they could see would result in an increase of approximately 11 per cent in the total number of weekly patient-visits now being handled by dentists.* This indicates that a rather narrow margin exists between the present situation, in which patients can obtain care with reasonable promptness, and one in which services would be delayed for weeks and even months. The latter situation would prevail were any appreciable increase in demand or withdrawal of dentists from civilian practice to take place. This is what we saw happen during the last war.[3]

* If the average of 57.0 patient-visits holds for all the practitioners in this area, then there were some 84,645 visits during the study week to 1,485 dentists. If we apply to this total the finding that 40.7 per cent of the general practitioners could see an average of 15.4 more patients on the average, then 9,300 more patients could be seen. This represents 11 per cent of 84,645.

The above does not imply, however, that an increase in demand or withdrawal of dentists would provide additional patients for those dentists willing to see them. Dentists differ in performance and in ability to attract patients. The experience of the last war with respect to physicians would indicate that the pattern of differences is little affected by a reduction in the number of practitioners. In time of maximum shortage there were physicians with few patients and physicians with many.[4]

To summarize, the conclusion seems warranted that currently demand and supply of dental services are close to equilibrium. The balance is a delicate one which can be easily disturbed. Any appreciable withdrawal of dentists, who will primarily come from the younger groups, can be expected to place a burden upon the remaining dentists.

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APPENDIX A

ODONTOLOGICAL SOCIETY OF WESTERN PENNSYLVANIA

Mobilization and Defense Manpower Studies

For the week May 7 - May 13 inclusive, please answer the following questions:

1. How many hours of the week did you spend in the office?

   (a) Total ..... _____
   (b) At the chair treating patients .... _____
   (c) In the laboratory..... _____
   (d) On other work..... _____
   (e) Number of free hours..... _____

2. How many hours did you spend in professional activities outside the office?

   (a) clinic _____ (c) other (specify) _____
   (b) teaching _____ _____

3. What was the total number of visits by patients? _____

4. (a) Could you have seen more patients without reducing the quality or quantity of services rendered to the patients that were seen? ____
   If yes, how many more? _____
   (b) If calls by new patients (non-emergency) warranted, would you spend more time in the office? _____
   If yes, how many additional hours per week? _____

* * * * * * * * *

5. (a) Do you employ a dental assistant? Number _____
   (b) Do you employ a dental hygienist? Number _____

6. How many dental chairs are used by you and your auxiliary personnel (excluding other dentists)? _____

7. If a new patient (non-emergency) called for an appointment, could you see him: (check one)
   Within one week ☐ Within a month ☐
   Within two weeks ☐ Could not see pt. within month ☐

8. Place of practice (check one)

   (a) If Allegheny County:
   (1) Office building in Downtown, Oakland or East Liberty ... ☐
   (2) Elsewhere in Pittsburgh ..... ☐
   (3) Outside of Pittsburgh ..... ☐

   (b) Other than Allegheny County:
   (1) Community of less than 5,000 population ..... ☐
   (2) 5,000-10,000 population ..... ☐
   (3) 10,000-25,000 population ..... ☐
   (4) Over 25,000 population ..... ☐

9. Year of birth _____ (b) Years in practice _____

10. Comments _____

_____

11. Are you in general practice? ☐ In a speciality ☐

Intra-Oral Tumors

DANELY P. SLAUGHTER, M.D.

A GREATER variety of tumors occurs in the oral cavity than in any other anatomic region of the body. Detailed consideration of the treatment of these various histologic types would be a monumental task and beyond the limits of this paper. Therefore this study will be confined to a statement of the problem and discussion of the indications for different measures. The problem presented by intra-oral tumors is in two categories: first, the incidence and lethal frequency, and second, the variety of histologic types and behavior patterns.

INCIDENCE AND MORTALITY

Intra-oral cancer constitutes about 15 per cent of all cancer incidence, being thus a major factor in cancer mortality. These tumors contribute more to cancer mortality rates than their percentage incidence would indicate because the cure rates of these neoplasms are lower than those for any other comparably accessible anatomic sites of cancer.

Cancer of the skin, the breast, rectum, and uterus all are cured in higher percentages than cancer of the mouth, yet oral tumors are accessible, can be seen without the use of instruments, can be palpated, and can be biopsied easily.

The over-all cure rate of intra-oral cancer in the best clinics in this country and in Europe is about 25 per cent, certainly not better than 30 per cent. If it were possible to assess the American cure rate in average hands, it would probably be appalling. On the other hand, in a selected group of patients whose cancers were less than 2 cm. in greatest diameter, Martin* has reported a much better salvage rate, achieving a 60 per cent five-year cure in carcinomas of the buccal mucosa. This discrepancy between the over-all picture and that for early cases simply means that early diagnosis is the most important single factor in the outcome of the patient with intra-oral cancer. The dental profession is vitally concerned with this aspect of the disease, because, in the same study, Martin stated that 60 per cent of patients with intra-oral cancer consulted their dentists first. In this respect—that of early suspicion and recognition—the dentist is a more important individual than the physician.

HISTOLOGIC TYPES AND NATURAL HISTORY

Table I gives a simple, but not exhaustive, classification of intra-oral tumors. This table is presented to illustrate the complexity of the problem and also as an outline guide to the type of treatment indicated.

Although this classification of intra-oral tumors seems rather complicated, it contains a great many headings. Our problem is, to a certain extent, simplified by the fact that a majority of malignant tumors of the mouth fall in the soft tissue classification. About 90 per cent of malignant intra-oral cancers are epidermoid or squamous cell carcinomas. These being in the majority, it follows that the rest of the headings are almost all rarities.

Presented at the Fourth Annual Conference on Dental Health, University of Pittsburgh, Pittsburgh, April 18, 1951.

Associate Professor of Surgery, University of Illinois College of Medicine; Director, Tumor Clinic of the Research and Educational Hospitals; Associate Attending Surgeon, Presbyterian Hospital, Chicago.

* Martin, Hayes. Mouth cancer and the dentist. *J.A.D.A.* 33: 845-61, July, 1946.

Of these epithelial tumors, leukoplakia is put in the first heading because it is on the borderline between a reaction to injury and one of actual neoplasia. Leukoplakia may be in a reversible form and treated medically, or it may be irreversible and headed through a maturation towards cancer. This type of leukoplakia which is irreversible, palpable, and of long standing must be treated by destruction, either by cautery or by excision. It is not a radiation problem because its differential of radio-sensitivity, as compared with that of normal stratified squamous epithelium is so slight, that an extremely destructive dose of radiation would have to be used to destroy it.

This is in distinct contrast to the problem presented by squamous cell carcinoma whose treatment has traditionally been by radiation methods.

Since the effect of roentgen rays was first demonstrated on tumors, the treatment of intra-oral epidermoid carcinoma has been mainly by the irradiation methods. These methods constitute combinations of external x-radiation, intra-oral cone radiation, and interstitial radiation either in the form of low intensity radium needles, or by the use of interstitial radon seeds. These forms of treatment have apparently reached approximately a maximum of effectiveness and, as stated before, the over-all salvage rate by these forms of treatment runs about 25-30 per cent. Because of this, in recent years, there has been a swing back towards surgical management, and we are now in a state of assessment of what improvement there can be from a radical surgical approach to many of these lesions.

The surgical approach is now being used again because of advances in anesthesia whereby intra-tracheal anesthesia is used, and thus the airway is completely isolated from the operating field, and secondly because of the use of antibiotics and better understanding of the problems of shock, fluid balance, and the use of multiple transfusions during surgery. In many cases the surgical approach is combined with a radical neck dissection because of metastatic disease from the tumor; frequently the hemi-mandible is sacrificed because of involvement by tumor or because it is a structural barrier to surgical access to the intra-oral cancer.

It is too early yet to give a five-year statistical salvage rate, yet it is already possible to say that certain patients who were formerly considered hopeless by radiation methods have been salvaged by these radical surgical approaches.

Lymphoepithelioma, listed as (3) under epithelial tumors, occurs almost exclusively in the lymphoid tissue of Waldeyer's ring, either in the base of the tongue, the tonsil, or in the lymphoid tissue of the nasopharynx. This is entirely a radiation problem.

Number (4) lists the tumors of the so-called minor salivary glands. Mucous glands in the mouth which are particularly abundant over the palate, reproduce exactly the same tumors that the major salivary glands do. They are listed as mixed tumors, cylindromas, and the recently described muco-epidermoid tumor. These are all entirely surgical problems, as they are in no way radio-sensitive.

Malignant melanoma also occurs in the oral mucosa and, again, is a surgical problem.

The reticulo-endothelial system contributes a certain number of tumors in the mouth and they must be considered in differential diagnosis. Reticulum cell lymphosarcoma occurs usually as a part of a systemic involvement; however, it may occur singly as a primary lesion in the mouth and particularly in the tonsil.

Lymphocytoma is a similar problem and also plasmocytoma. These are radiation problems when they are diagnosed, as they are quite radio-sensitive. The same applies to Hodgkin's disease and the curiosity of Kaposi's involvement in

the mouth which usually affects the tonsil.

There are other mesenchymal tumors listed in III of the Table, some of which are specific to the mouth. Myoblastoma of the tongue is one. This is usually a benign tumor and is a surgical problem. Everyone is familiar with the two types of epulis: the giant cell and the fibrous type which are, again, surgical problems.

Lipomas, lymphangiomas, hemangiomas, fibrosarcoma, and leiomyosarcoma all occur and must be diagnosed individually and handled separately. Some of the angiomas may be handled by radiation methods; the others are all surgical problems.

Bone tumors that are specific in the mouth are familiar to all of you; they are listed under IV in the Table. All of those listed in this heading are surgical

Table I

INTRA-ORAL TUMORS

A. SOFT TISSUES

I. Epithelial Tumors
1. Leukoplakia
2. Epidermoid or squamous cell carcinoma
3. Transitional cell or lymphoepithelioma
4. Minor salivary gland tumors
   a. Mixed
   b. Adenoid cystic carcinoma (cylindroma)
   c. Muco-epidermoid carcinoma
5. Malignant melanoma
6. Lingual thyroid adenoma or carcinoma

II. Reticulo-endothelial System
1. Reticulum cell lymphosarcoma
2. Lymphocytoma
3. Plasmocytoma
4. Hodgkin's
5. Kaposis

III. Other Mesenchymal Tumors
1. Myoblastoma, tongue
2. Epulis
   a. Giant cell
   b. Fibrous
3. Fibroma
4. Lipoma
5. Lymphangioma
6. Hemangioma
7. Fibrosarcoma
8. Leiomyosarcoma

IV. Bone Tumors
1. Adamantinoma
2. Ossifying fibroma
3. Central giant cell tumor
4. Odontoma
5. Osteogenic sarcoma

V. Secondary Involvement
1. Carcinoma of maxillary antrum
2. Carcinoma nasal cavity
3. Tumors of major salivary glands
4. Neurogenic tumors
   a. Neurofibroma
   b. Neurilemmoma
   c. Neurosarcoma
5. Carotid body
6. Metastatic tumors

problems and are not a problem of radiation treatment.

Heading V lists a rather important classification from the standpoint of differential diagnosis. Carcinomas of the maxillary antrum and the nasal cavity may perforate into the alveolar ridge or palate, and not infrequently will present themselves as carcinoma of the mucosa of the mouth, when actually they are perforated carcinomas from the inside. Since their histology is identical, being squamous cell carcinoma in most instances, it may be a very confusing situation. The reverse is, of course, also true, that squamous cell carcinoma of the oral mucosa may perforate the antrum or through the palate. In either event, the treatment problem presented is identical from the standpoint of anatomic involvement.

Other tumors listed under V in the Table are more or less self-explanatory from the standpoint of differential diagnosis, and in the main their treatment is surgical when diagnosed.

The last heading (6), metastatic tumors, perhaps causes the greatest degree of confusion. Metastatic tumors to the jaw, either upper or lower, unfortunately come from almost any tumor, most commonly from the breast, kidney, or prostate gland. These require a general physical examination done with considerable finesse to determine the primary, and naturally are all palliative problems from the standpoint of treatment.—*1819 West Polk St., Chicago 12.*

◆

CANCER OF THE MOUTH

About 7,500 Americans die each year from cancer of the oral region—lip, cheek, tongue, palate, gums or floor of the mouth. The disease may first appear as a small lump, warty structure, chronic fissure or sore. It is often painless in its early stages.

If recognized and treated early, cancer of the mouth may be completely eradicated. Its early detection is vitally important. With every delay the likelihood of the cancer spreading is increased, and the chances of cure are lessened. Oral cancer is more common in older people than in the young, but no age group is free from its threat.

Any fissure, nodule, sore, lump or other abnormality should be regarded with suspicion until its true nature is known. The removal of a small piece of the suspected tissue for study under the microscope may be necessary before the presence of cancer can be definitely determined. X-ray examinations of bony structures is often indicated.

Cancer occurs more frequently in mouths where there are rough edges on teeth, or ill-fitting dentures. Keeping the mouth clean by proper home care, together with regular visits to the dentist, are preventive measures that will lessen the danger of fatal cancer in this region of the body.

White patches (leukoplakia) on the cheek, gums or tongue are indicative of chronic irritation. They are much more common in the mouths of smokers than in those of non-smokers. Cancer is particularly likely to develop in areas of this kind. When such patches are discovered, smoking should be discontinued and medical or surgical treatment started.

The patient with cancer of the mouth need not abandon hope. More than 80 per cent of oral tumors, if detected and properly treated at an early stage, can be cured. Modern surgery and irradiation therapy (radium, X-ray and radioactive substances) in expert hands are winning the battle against cancer when they are started before it is too late.

Prevention, of course, is always to be preferred to treatment.

Personal care to maintain good oral hygiene plus regular mouth examinations will help to reduce the death toll from cancer of the mouth.

DELAY IS DANGEROUS!

CAUTION IS LIFE-SAVING!

(A pamphlet distributed by the Department of Health, Commonwealth of Pennsylvania, Division of Cancer Control and Bureau of Dental Health.)

Emotional Needs of Children as Reflected in Personality and Behavior Problems

MARY C. ROLAND, M.A.

I SHOULD think that some of you, at least, must have questioned the importance of a topic relating to the emotional needs of children, at a meeting in which you expected stimulation and further knowledge of the principles of dental hygiene. In composing this paper I could not even think of a joke to tell you that might relate the two fields. I do, however, feel in a position similar to the five-year-old, who, after an altercation with his father, decided to pack his pajamas, and naturally, his toothbrush, and go away. Having seen him make several trips around the same block, a policeman asked him just what he might be doing. His reply was, "I'm running away from home but I'm not allowed to cross the street." In being on the program of a dental hygienists' meeting, I really have run away from home. But I want to cross the street half way, and meet you there; for some common ground does exist for all who work with children.

The certainty that emotional undertones accompany all situations in life, and indeed, anything relating to the physical, and the recognition that all persons dealing with children, particularly professional persons, have meaning to them, is my beginning premise in this discussion with you. In the prophylaxis of either dental caries or mental caries, our interests are mutually related to the conservation of children's health and well-being, and to the contributions we can make to their general adjustment. Basically and technically, our focus is very different. The parallels of dental health and mental health, while equidistant from each other, are equally important particulars of little human beings who are growing up, physically and emotionally. Children absorb from those of us who are supposed to have grown up in these areas, the attitudes, habits, prejudices, and the criteria of living which are a developing part of personality. We can deal successfully with these children, only as we recognize and implement in our everyday functioning with them the principle that the physical and emotional facets of a person—child or adult—are parallels which, realistically, must meet.

As I understand it, the school dental hygienist, though working with children individually, has contact with numbers of children. In a situation such as yours where time and numbers are important; where these pressures and others, such as the anxieties which may find expression in the focal point of dental work, test patience, endurance, and emotions; and where a dental hygienist may be made to feel that her work interrupts school routine, by those who have tangible evidence of the lack of dental hygienic personnel in an earlier day—in these circumstances, the dental hygienist must be convinced of the importance of her job. Only with this conviction of the importance of her own job responsibilities, will she be able to convey this feeling either to school personnel or to the children themselves.

Presented at Third Annual Training Conference for School Dental Hygienists, State College, Pa., April 20, 1951.

Psychotherapist, Child Guidance Center, Harrisburg.

The emotional needs of children can be expressed otherwise, as the requirements which are necessary in a child's own make-up or in his environment, for his better mental or emotional health. Some children have more needs than do others. When the environment does not offer support to a child; when there is inconsistency in discipline from the parents, when a child feels proud of an accomplishment and this pride is undermined by casual teasing or belittling from an adult, or when there is comparison between him and his family about his school grades, his intelligence, the appearance of his teeth, or his general behavior, that child's needs begin to be greater than others. The child who does not find the necessary warmth and understanding in his relationship at home, will be the child who stands out most prominently in your contacts with him at school as sullen, unsociable, and withdrawn, or as one of the hostile troublemakers who makes trouble only because he, himself, is troubled. Any problems of personality or behavior indicate that the particular child who has them is unhappy within himself, and that something is going awry in his emotional growth.

In working with children, threats of disaster to the mouth and to the appearance of the face may seem like a good healthy approach to helping a child towards maintaining a well-integrated, good appearing physical self. It is undoubtedly superfluous to comment to you, about the impact a child feels when he hears that he will lose all his teeth if he doesn't drink his milk; that he will have his mouth bound up in braces if he doesn't stop sucking his thumb; or that his teeth will fall out, inch by inch, if he bolts his food. You are aware, I am sure, that it is the already anxious and unhappy child who refuses to eat, who sucks his thumb, or who attacks his food as if someone else will get it before he does. But as dental hygienists, you deal with parents in the home; and often, in your professional capacity, you will meet with parents who, just by virtue of being parents are emotionally involved with their children, who believe that any forceful approach to a child must be a negative approach, and feel that their child's way of expressing himself is motivated, personally, to annoy them. You have seen, that in their attempts to be helpful, parents can increase the tensions of a child who is anxious and unsure of himself. Those of us who work directly with children, either in short-term contacts such as yours, or in prolonged and continuing contacts as are mine, have the opportunity in every contact, to leave with a child the feeling of, "here is one person who is a friend," or one who is not.

Every person who, in any way, is a part of a child's everyday life has some effect on him. Any one of us, even in a casual or perfunctory contact with a child might, at the time, be the only person who handles him with understanding, or who gives him the impression of respecting him as a real person. It might be any one of us also, who, like the child carrying over frustrated feelings from other situations, considers the job a safe and uncritical spot to release these feelings. It is possible, then, to forget that our attitudes in working with children are important to them, not only in respect to their future orientation toward dental personnel, but in their general adjustment towards people. For children accept the world on the basis of how the world accepts them, and they treat it accordingly.

I do not say, by any means, that we must be stolid and unemotional with children. It is valid to become angry if we show the other person that the reasons are real. Supposedly being more mature than the child, however, there are times when we cannot, with validity, take his affronts as if meant personally. A child

who has been "frosted" (or bitten by emotional coldness) is very likely to try to freeze out others, to keep aloof from them, to defend himself against any closeness with them by a protective covering of stubborn, vindictive, or aggressive behavior. I should think you would meet this occasionally in your school contacts. For physically speaking, there is scarcely a closer inter-human contact, aside perhaps from wrestling or osteopathy, than the patient-dental personnel situation. In these circumstances a child who has no reason in his past experiences to be close to people, or who has real reasons for keeping his distance, will no doubt be extremely fearful of the threat of physical closeness to another. He may withdraw, even if a gentle hand is laid on his shoulder; he may bite, not because he is angry at you but because he is afraid; he may fight you if he thinks that you will be frightened instead of him. It is usually the apparently fearless child who is really the most fearful.

I mention the factor of physical closeness for two reasons. My first point is this: the interpersonal position that is inherent in the patient-dental, or patient-dental hygienist situation is a symbol to the child of the possibility of someone infringing on him as a person. The child who shies away from you, whether he be assaultive or cringing, is basically the kind who has shied away from others, and I do not mean in only physical ways. If you could know him better you would find that he is probably the kind who cannot let anyone get close to him in feeling, who thinks that everything he knows must be a secret, and who refers, in addressing people, to YOU, rather than in the personal and more conventional manner of using names. Some children cannot allow anyone else to be a person in his own right, especially if they feel that no one has given them that privilege. In a Child Guidance Center, to which, incidentally, children of this type might well be referred, we might find that it consumes a period of several interviews to establish with a too self-contained child, the kind of relationship which you are expected to fix almost immediately. There probably will be some children whom you can never reach, not because your own techniques are at fault, but because your situation with this kind of child points up his own problem, which may be in no way remotely connected with dentistry as such. That is my second point—that the problems you encounter personally, as professional people, may be related to many circumstances and people in the child's experiences elsewhere, and are not of your making. You may, at the moment, however, he able to begin, as one person, to undo some of the previous damage that a child has had in his human relationships.

The type of preparation which I understand you present prior to your actual work, is probably the most effective means of alleviating that unfortunate but traditional "fear of the dentist" which society never has been successful in obliterating. It seems important, too, that with the realization of what will be involved for the child, precautions be taken that he does not identify you, for example, as the "needle lady," for you might easily be considered so, in your white uniforms. One can scarcely know what thoughts might be percolating in a child's head in a first contact. It was not because of my own grace that one child who came to the Clinic and saw me for the first time, thought I was a dancing teacher; nor was it due to an array of instruments or a white uniform that another screamed that I would jag her with needles; and hardly can I think that my own belligerence was the reason for another's conceiving the unhappy thought that I would beat him up because he had stolen his mother's purse. Any such misconceptions on the part of a child presume that he has had poor

preparation for a new experience, or less often, that he will not accept his need for it. When a child's need for help is urgent, immediate, and self-evident, he will seek that help voluntarily. A child of secure parents who can be direct in telling their child why they need help together, always is much more ready to move into a new experience. Similarly, as I feel it important, always, to be direct with people, the child who knows what to expect, and why, in the way of dental treatment, undoubtedly will accept it more easily than if left to speculate for himself. And often it is of benefit to both the child and his supposed antagonist, the dental hygienist—to have him put into words what he thinks will happen to him in such a new situation, and just why he is afraid. Articulation of the feelings that he is living through, is a healthy way of avoiding the alternative of extreme behavior, extremes of reticence and withdrawal, or aggressiveness and assaultiveness.

It seems that a child's fear of the unknown is a fundamental problem. When this involves, also, the potential of another person's being in control of a situation of which he is a part; when it contains the implication of someone doing something to him, the risk to an already insecure child is even greater. The twelve-year-old boy who in discussing baseball, stressed "I like to pitch a ball to somebody else but I don't want to catch or bat" was saying essentially, "I can take the chance of doing something to the other fellow but I can't risk being someone else's target." I feel quite sure that this boy could not sit comfortably in a dental chair facing forceps and drill; for to him, and to others like him, he would be happy only if in the safer position of using them on someone else.

I should like to illustrate briefly with the instances of three children, all boys, whose personality difficulties were focused somewhat, in their own and in their parents' eyes, around dental troubles.

(1) Karl, age 9, had become a problem to his mother and the school. In his mother's words, "he bothers us because he is nervous. We see that he becomes more nervous when he's supposed to go to the dentist. He twitches his eyes, clears his throat, and coughs all the time when he's in the dentist's chair. Sometimes he holds his mouth tight shut. All of his trouble is because he's so afraid of the dentist. Of course, I was always scared to death of the dentist and so was his Dad. We can't bear to see him get his teeth drilled. We like it better when the dental hygienist takes him. Even then, I sit at home and worry. He's my baby, you know, and I never want him to have to worry about anything himself." Karl's uncertainties had some basis in the emotional contagion of feeling prompted by his parents' fear of the dentist. Undoubtedly, he picked up their anxiety when they shifted a responsibility that could have been his own or his parents', to the dental hygienist. Nor could he have escaped their protective worry about him, without responding to it as he did.

When I saw Karl for the first time he was a restless, uneasy, non-committal boy of 9, obviously very much afraid, and with a defined purpose of not sharing his feelings, his worries, or his fears. His stock reply was, "I don't care," but before this first hour was over Karl had broached the subject of his fear of the dentist, and additionally his "nervousness" at every new situation. Everything he said to me was toned with anxious feelings, and it was evident early, that here was a very tense, dependent little boy who feared what others—the teacher, his parents, the dentist—would do to him. He wanted to say "no" to everything, but being fearful of not being accepted by others, he had to be a "yes" boy. The one place where he had been

able to risk self-assertion and differing from his mother's wishes had been in relation to the dentist. He was such a docile, conforming youngster that he was no problem to his mother except in this area where he fought her. Hence, to her, his principal problem was in his refusing to go to the dentist. As he continued in therapy the discussion became diffused, and only occasionally did either of us mention the dental problem. Gradually, with the freedom given in psychotherapy, his inhibitions lessened and he dared to talk above a whisper, to soil his hands with finger paints, little by little to be noisier, and eventually to use a word or two of cursing. There were increasing evidences of self-confidence, and reports that he was beginning to stand up for himself and even to occasionally become involved in a scuffle. He arrived for his interview one day, beaming about "a black eye" he had acquired because he had initiated a scuffle at school. Gleefully Karl told of shooting paper clips at the school teacher and "laughing in her face." This was overt expression in a direct way, of the hostility he felt towards the teacher in the beginning, when he was giving her all the blame for his own difficulties. The teacher had somewhat of a difficult time accepting his release of inhibitions during this period of over-assertion, but became more tolerant when Karl, thereby, was no longer afraid to recite in school and could now risk giving answers. His self-expression was becoming more general and more balanced. He had previously commented, "Sometimes I don't know the words for sure, so I'm scared to say them at all." After several weeks of not mentioning the dentist in therapy he told, in his twelfth interview, of having decided to see him. In his seventeenth, and next to last interview, I quote, "I'm not afraid of the teacher or the dentist, or anything."

(2) The second instance, which I wish to mention briefly, is a 13-year-old boy, Bill, whose mother applied for service at the Clinic, because of the crises that arose at home. These, too, were at the time, focused around his facing going to the dentist. For weeks he would first think about it, then would decide to keep his own appointments but once he saw the dentist, would refuse to have any work done. His mother discussed the situation with the dentist, who was quite patient with Bill. Meanwhile, she kept after him constantly not realizing that she was intensifying the problem with a boy whose oppositional tendencies were prominent in any area. A little later on Bill's mother brought out that he had a few other difficulties too. His pattern of expressing his feelings was in very indirect ways. He wet the bed every night, tantalized other children and most of all his sister, and had facial mannerisms. He was the least close to his parents of three children.

I found Bill to be a large, huskily built and handsome boy of superior intelligence. He came for twenty interviews. In the beginning he was self-effacing and afraid to say that anything he did was of any value. In his second hour he spontaneously connected his lack of self-confidence with his fear of the dentist. He thought, also, that he had used this as one point where he could afford to assert himself, a quality which was missing, otherwise. His chief difficulty, he said, was that he could not bear to have people do things to hurt him. It developed that he had a good deal of resentment towards his mother and sister, particularly; could not stand up for his own rights, and he found it most difficult to discuss any of this at home. Because he could not say how he felt about people and situations, Bill had to express himself in such indirect ways, and ways which were often far removed from the source of trouble at the moment. Every so often, in his interviews, he would

mention the dentist. He began to generalize that his lack of trust in what the dentist would do to him was really a much broader lack of trust in anyone, even himself. He was generally suspicious, and in order to avoid the hurt of being criticized, he would expect criticism and therefore bring up his own defenses first—he was ever ready to use his defenses of withdrawal, keeping all feeling and emotion within himself, and leaving himself to the abandon of others, all the while resenting them without being able to say so. We felt that his own statement in ending his clinic interviews revealed a freedom that would cover his everyday life and his problems pretty well—"The most that I've gotten from coming here is that I can talk things over at home with my parents now. And since I'm not scared to do that, I don't have to be afraid of other things. Next year I can play football because I can stand my own ground. And before I do that I'll go to the dentist. Now I can talk over with him how I feel about that, too. The real reason I never liked that dentist is because his son and I had a big fight one time. But now I've forgiven him because I see that it was my fault, too. I think it's funny, though. I don't blame other people any more at all."

(3) The third example I wish to use is that of a 17-year-old boy, referred by a dentist who recognized that this lad, who was biting his inner cheek to the point of possible malignancy, probably had reasons for doing so. He definitely did. Pete, fatherless at the age of 3, was placed in a materially good institution when he was 6 years old (eleven years previously). He was the youngest of eight children who all were fairly irresponsible towards a mother who constantly wrote Pete of her poverty, unhappiness and loneliness in the world. This boy, burdened with a sense of guilt based partly on fantasy, was feeling unrealistically responsible for his mother's plight. He was guilty at his own physical comfort in contrast to his mother's uncomfortable state, and kept biting at himself as if in punishment. There were others, especially his older brothers and sisters, whom, I am sure, he would like to have bitten; but without this opportunity, he directed his aggressive feelings towards himself. Had he been able to express these feelings verbally, he might not have had to act them out by biting himself. As Pete talked out his resentments he commented, "I don't carry around that heavy load any more. I'm not so guilty."

I mention this instance because I wish to point up to you the emotional factors that may precipitate some of the problems of children who come to your attention.

In closing, I wish to say that I hope it may be helpful for you to have this kind of understanding of the background and the motives of children's behavior which, so often, appears to have no rational basis in the children you see. We who work with children's emotional problems are always happy, on the other hand, to benefit from the insight that other professions can offer us in relation to our work. And now, after having come half way across the street to meet you on a common platform, as I mentioned in the beginning, I hope we can return to our respective homes, as the little boy did eventually, being richer in our feeling for, and understanding of the children we meet professionally.—*1904 North Second St., Harrisburg.*

PENNSYLVANIA
DENTAL JOURNAL

OCTOBER, 1951

EDITORIALS

THE PRESIDENT'S PARAGRAPHS

DURING the Summer, I represented the Society at the annual meetings of the 8th and 9th Districts and the Summer outings of the 4th, 5th, and 7th Districts. The keen interest shown in Society affairs was gratifying and indicates a healthy, growing concern in professional and administrative problems.

Also during the Summer, Pennsylvania saw its first application of fluoride to the community water system at Ford City. We were informed, at the Pittsburgh meeting, that Brookville also had introduced fluoride in its water supply. This is commendable and I hope is only the beginning of a general acceptance of such a program throughout the Commonwealth. In addition, many other communities are being approached by their dental groups to have similar programs instituted; we wish them every success.

These remarks are being written at the close of the 83rd Annual Meeting of the Society at Pittsburgh. More complete reports of this convention will appear in the November JOURNAL, but I do want to tell you that the meeting was a great success. The scientific program was excellent and only confirms my belief that an outstanding program is the best assurance of good attendance. The registration was heavy, and comment on the program was general and most favorable. The social affairs for the ladies and guests were many and enjoyable.

I take this opportunity to thank, personally as well as officially, all the committees that gave so generously of their time and effort to make the meeting the outstanding success it was. The business sessions of the Board of Trustees and House of Delegates were well attended, were productive of considerable discussion and action, and reflected the general live interest in administrative affairs I had already noted in the district societies.

This is an appropriate time and place to pay tribute to those men who so carefully direct the business of the Society. While much praise and commendation are

given lecturer, clinician, and scientist for their contributions to the programs of our meetings—and rightfully so—we must not forget entirely the men who make these meetings possible. Any organization be it professional, industrial, or commercial needs to be governed, and the men elected as your officers, trustees, and delegates in our case do the governing. It is to these men that we owe a larger debt of gratitude for keeping the community and the state conscious of the advancements and undertakings of our profession, and for maintaining its important position among the healing arts. I should like to encourage many more of our members to take an active part in the conduct of the affairs of the local, district, and state society.

Again I say that it was a genuine pleasure to preside over this 83rd Annual Meeting and to work with the fine men who represented the districts.

—PAUL E. BOMBERGER.

ANNUAL MEETING BRIEFS

DESPITE Pittsburgh's weather on September 11-13, when temperatures reached the high 80's, some 1850 registered at the 83rd Annual Meeting of the Pennsylvania State Dental Society and the Greater Pittsburgh Meeting; there were 1,106 dentists, representing all parts of the Commonwealth, in attendance. A full and detailed report of the meeting will appear in the November JOURNAL.

Noted guests who appeared at one or more of the functions and sessions included: Pennsylvania's Secretary of Health Teague, Senator Pechan, and Representative Boies; William R. Roper, president of the West Virginia State Dental Society; Louis A. Saporito, president, and J. G. Carr, executive secretary, the New Jersey State Dental Society; Donald H. Miller, president, the Dental Society of the State of New York; C. L. Inman, Sr., president, and E. L. Pessagno, secretary, the Maryland State Dental Society; John A. O'Keefe, president, and Karl H. Wood, secretary-treasurer, the Dental Society of the District of Columbia; Harold B. Gardner, president of the Medical Society of the State of Pennsylvania; William A. Bradshaw, president, and William F. Brennan, secretary, Allegheny County Medical Society; J. Watson Harmeier, director of health, Pittsburgh Board of Education; Gerald J. Cox, professor of dental research, University of Pittsburgh; and Chris S. Van Horn, recipient of the 1950 Pennsylvania Award.

The 1952 officers of the Society are: Frederick W. Herbine, Reading, president; Walter F. Wade, Erie, president-elect; E. A. Saeger, Pittsburgh, and R. W. Bolton, York, vice-presidents; Miles D. Zimmerman, Pottsville, secretary; George A. Hutter, Wilkes-Barre, assistant secretary; and Dale M. Wampler, Harrisburg, treasurer. The Board of Censors (an elective position) include: T. J. McFate, New Castle; Fred C. Robinson, Uniontown; L. E. Hess, Philadelphia; A. L. Ventura, Norristown; and H. C. Reichard, Conshohocken. Also delegates-at-large to the 1952 ADA meeting at St. Louis were elected; this list will be published in a later issue of the JOURNAL.

Claire H. Lathrop, Emporium, was seated as trustee from the 8th District, in place of Karl E. Wenk who was ill. Wm. P. Manning, trustee from the 1st District, resigned earlier this year; he was replaced by Paul R. Schock, Philadelphia. Trustees re-elected were: H. C. Watson, Chester, 2nd District; E. Harold Finnerty, Scranton, 3rd District; and J. T. O'Leary, Girard, 9th District.

The 1952 meeting will be held at Reading, the home-town of President-elect Fred Herbine. The dates are May 5, 6, 7.

The address of President Bomberger, the report of Executive Secretary Ray Cobaugh, and the report of the Reference Committee on Reports of Officers and Standing Committees, together with the minutes of the meetings of the Board of Trustees and the House of Delegates, will be published in the November JOURNAL. The latter report—that of the Reference Committee (this year consisting of Victor H. Frank, Harry K. Willits, and Isaac Sissman, chairman)—is the meat of the meeting. Most of the actions of the House of Delegates result from the recommendations of this committee. A few of these actions are noted briefly below.

It was recommended that the delegation to the Washington ADA meeting not be bound by any instructions concerning the inclusion of dentists in the Social Security program, and that further study of this problem be undertaken before the 1952 Society meeting at Reading.

W. Earle Craig, ADA Trustee from Pennsylvania, was instructed to resubmit a resolution to the ADA calling for the elimination of direct ADA membership to dentists employed in Federal services, and advocating reduced membership to dentists in the armed forces during a national emergency which would provide returning a portion of this reduced fee to constituent and component societies. (An editorial in the JOURNAL of the ADA, September, 1951, refers to this matter.)

Other matters relating to the military services were: it was recommended that the ADA reconsider its endorsement of the ratio of 2 dentists to 1,000 service men; the discontinuance of the practice of providing dental care to dependents of those in the armed services; to study more completely the role of the dental hygienist in the armed services; and that inductees be given full-mouth roentgenographic examinations with a minimum increase in dental personnel.

The essay contest for senior students, members of the Student ADA in the three schools of Pennsylvania, will be discontinued. In its place an award will be made available to those students in the Pennsylvania schools that have been most active in the advancement of the Student ADA organization during their four years in dental school. Full details of this new method of award will be published by the special committee on awards.

The House of Delegates passed a resolution recording its disapproval of and discouraging the sale of candy and other confections in schools.

Because of dead-line restrictions and the fact that the meeting was held in mid-September, further reports on this 83rd Annual Meeting could not be published in this issue. The November issue will report the major part of the proceedings.

Policy on Fluoridation

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PENNSYLVANIA DEPARTMENT OF HEALTH

IN COMMUNITIES where a strong public demand has developed for the addition of fluorides to their public water supply for the partial control of tooth decay, the Pennsylvania Department of Health recommends that such treatment be provided under certain conditions.

Numerous studies made during the past decade by the United States Public Health Service and other qualified authorities, in Michigan, New York and elsewhere, have clearly demonstrated that the presence of fluorine in the drinking water during the formative period of the teeth is associated with a 60-65 per cent reduction in tooth decay.

When carried out under properly controlled conditions, this procedure has been endorsed by the following organizations:

United States Public Health Service
American Public Health Association
American Dental Association
American Water Works Association
State and Territorial Health Offices
American Association of Public Health Dentists

The recommended concentration of fluorides in terms of fluorine (F) is one part per million. In such a concentration, no harmful effects have been reported. Actually, people in many parts of the world have been using water containing fluorine in concentrations of five parts per million with no apparent harmful effects except a mottling of the tooth enamel.

Permission to add a fluoride to a public water supply in Pennsylvania requires a permit from the Pennsylvania Department of Health. The requirements of the Department for such fluoridation treatment are as follows:

An application for such a permit shall be submitted in duplicate by the responsible officials in charge of the public water works and shall be accompanied by written endorsement of the fluoridation program by the local health, medical and dental authorities.

It is suggested that communities considering the adoption of fluoridation of their public water supply investigate local conditions to determine whether such treatment would interfere with industrial processes in the community.

I. APPLICATION AND REPORT

The application shall be accompanied by a detailed report and plans, in duplicate, of the proposed treatment program and the method of application. No filing fee is required.

A. The report shall specifically include:

1. Present fluoride concentration of the water supply.
2. Fluoride compound to be used.
3. Equipment to be used for the introduction of the fluoride.
4. Upper and lower dose limits of the equipment.
5. Facilities available for the daily determination of the fluoride content of the raw and treated water.
6. Safety equipment available for the protection of the operators.

B. The plans shall include:

1. Detailed plans of the fluoridation equipment.
2. Location of the equipment in relation to the other units of the plant.
3. Point of application.

From the Department of Health, Commonwealth of Pennsylvania, regarding fluoridation of a public water supply, July 9, 1951.

II. OPERATION

The proposed operation shall provide for:

A. The application of fluoride only by means of precision feed equipment of a type approved by the Pennsylvania Department of Health.

B. Dosages so controlled that not more than 1.2 parts per million of fluoride in terms of fluorine (F) will be present in the water supply at any time. Dosages of less than approximately one part per million are not considered effective in Pennsylvania.

C. Equipment of such design that no back siphonage from it into the public water supply system can occur.

D. The equipment for the fluoridation of the water shall be used exclusively for such purpose.

III. CONTROL

A. Tests shall be made to determine the fluoride content of the raw and of the treated water throughout the distribution system daily, or at such other intervals as may be specified by the Pennsylvania Department of Health.

B. The method of determining fluoride concentration shall be in accordance with the latest edition of Standard Methods for the Examination of Water and Sewage. The use of permanent color standards in a fluoride slide comparator is permitted to facilitate adjustment of dosage, but shall not replace the aforesaid required Standard Methods test.

C. Operation reports shall be submitted to the Bureau of Sanitary Engineering at intervals specified by the Pennsylvania Department of Health.

DENTAL NEWS

Local-State-National

SOCIAL SECURITY FOR DENTISTS

Within the past two months, two issues of the *ADA Information Bulletin* have been sent to all members of the Association. The first, distributed in August, discussed the Old Age and Survivors Insurance (OASI) program of the federal Social Security Act. The second issue, mailed in early September, dealt with the problems of social security and old age retirement pensions; this latter features a discussion of the Coudert bill and the Ives amendment now pending in Congress. These proposals would amend the federal Internal Revenue Act to permit professional men and other self-employed persons to set aside, prior to income taxes, a portion of their earnings during high income years to provide a retirement income after the individual reaches 60 years of age.

Both these bulletins should be given careful study. And especially so by the delegates and alternates to the ADA Washington meeting.

An open hearing on the question of the inclusion of members of the dental profession in the Old Age and Survivors Insurance program will be held Tuesday, October 16, in the Hotel Statler, Washington, during the 92nd annual session of the ADA. The hearing will be conducted by the Reference Committee on Insurance of the House of Delegates. All interested members of the ADA are invited to attend. The reference committee will report its conclusions to the House of Delegates for final action following the hearing.

The ADA is now on record as opposed to the inclusion of dentists under OASI, and is in favor of adoption of amendments to the federal Internal Revenue Act: the Ives Amendment.

RELIEF FUND CAMPAIGN

An all-time high of $91,404.49 was contributed in the 1950-51 ADA Relief Fund campaign which ended July 1. Twenty-six state societies contributed more than 100 per cent of their quotas. Pennsylvania, the third largest constituent society, was not among the 26!

With a quota of $7,140, Pennsylvania contributed $5,196.65. This was 72.8 per cent of the quota.

MORE DENTAL STUDENTS

Data contained in the *Dental Students' Register—1950-51*, published recently by the ADA Council on Dental Education, indicate that the total undergraduate dental student enrollment in 1950-51 was 11,891, a 5 per cent increase over last year, and a 42 per cent increase over 1940-41.

This year's total included 3,226 freshmen, 2,975 sophomores, 2,888 juniors, and 2,809 seniors. Also, there were 2,679 graduate, postgraduate, and special students enrolled in the nation's 42 dental schools. The 26 schools for dental hygienists also showed an increased enrollment, with a total of 1,454 students, up 33 per cent over 1949-50. Eight new schools offered hygienist courses this year.

WANNA GO PLACES?

Of course, if you make up your mind right quickly, you can still get down to Washington for the 92nd annual session of the American Dental Association. ADA officials say hotel reservations are still available. If you don't wish to hurry that much, the following meetings will be held during the next few months.

The New Orleans Dental Conference, New Orleans, November 11-14; the Eighth Annual Seminar for the Study and Practice of Dental Medicine, Palm Springs, California, October 28 through November 1; the Midcontinent Dental Congress, St. Louis, November 25-28; the Greater New York Dental Meeting, New York, December 3-7; at the end of January, the Greater Philadelphia Dental Meeting, Bellevue-Stratford Hotel, Philadelphia; the Chicago Dental Society Meeting, Chicago, February 4-7; the Annual Postgraduate Clinic of the District of Columbia Dental Society, Washington, D. C., March 9-12.

And if you really wish to travel, there is the 11th International Dental Congress to be held at London, England, July 19 through July 26. For information write Mr. H. Parker Buchanan, secretary-general of the Congress, 13 Hill St., London, W.1.

For planners-ahead: please note that the 1952 meeting of the ADA will be held September 8-11 at St. Louis; and the 1953 meeting of the Association will run from September 28 to October 1 at Cleveland.

As for 1954: the House of Delegates at Washington will decide whether you will attend the ADA meeting at Atlantic City, Miami, New Orleans, or San Francisco.

And don't forget the meeting of the Pennsylvania State Dental Society at Reading, next May 5, 6, 7.

THE WOMAN'S AUXILIARY

The Woman's Auxiliary to the Pennsylvania State Dental Society met during the State Meeting at Pittsburgh last month. Officers were elected, committees appointed, and plans formulated for the year ahead. In due time a report of this meeting will be published in the JOURNAL. Activities of several auxiliaries throughout the state are reported here by Mrs. Francis J. Moylan.

The newly organized Philadelphia Auxiliary met October 3. Dr. Madelyn Holland, Philadelphia College of Pharmacy and Science, spoke on "Miracles of Modern Medicine." Also, Mr. Joel Loeb, representing the Citizens' Charter

Committee, discussed "Making the Charter Work."

The Scranton Auxiliary held the annual luncheon last June 12. This was a social function. The Program and Project Committees have made plans following the September 4 organizational meeting; they will be announced shortly.

The Lycoming Auxiliary has purchased a new dental unit for the clinic at the McCormick Welfare Center, Williamsport. Funds for this project were raised by various means during the past year. Plans for next year were initiated at a mid-September meeting.

The Odontological Auxiliary (Pittsburgh) was host to the State Auxiliary at the meeting at Pittsburgh last month. Early in October a special event—purely social—was held. On November 14, the speaker will be Judge Samuel A. Weiss, Common Pleas Court, who will discuss "Sex Offenders."

MEMBERSHIP FIGURES

The total membership in the American Dental Association up to July 31 was 74,154. Total student membership reached a new high of 9,087. The balance is broken down thus: 62,168 active members, 2,658 life members, 229 affiliate, 6 associate and 6 honorary members.

As of December 15, 1951, the American Medical Association reported an all-time high membership record of 209,040.

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NEWS FROM THE UNIVERSITIES

NEW DEAN AT PENN

LESTER W. BURKET

On July 1, Lester W. Burket became dean of the School of Dentistry, University of Pennsylvania, replacing J. L. T. Appleton who resigned.

Dr. Burket was graduated from the School of Dentistry at Penn in 1932; in 1936 he received the M.D. degree from the School of Medicine, Yale University. Since that time he has been associated with the School of Dentistry in various capacities and at present is professor of oral medicine in both the dental school and the Graduate School of Medicine. Also, he is chief of the Oral Medicine Service at Philadelphia General Hospital; vice chairman of the Council on Dental Therapeutics of the ADA; and author of the text "Oral Medicine." In 1946 he

was director of the Ivory Cross Expedition to Holland; and during the Summer of 1950, he was visiting professor to the National University of Bogota, Colombia, and the University of Antioquia, Medellin, Colombia. Dr. Burket's major fields of interest are diseases of the mouth and the oral aspects of systemic disease.

Dr. Appleton served as dean at Penn for ten years, having taken the position in 1941. He asked to be relieved of his administrative duties in order to devote full time to his research and teaching activities as professor of microbiology. In addition, he is consultant to the U. S. Public Health Service and many governmental agencies. He is a dental representative to the National Research Council, and chairman of the Council on Dental Research of the ADA.

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PITTSBURGH

Staff changes for 1951-52 are as follows: Dr. Robert W. Barnes has resigned as Instructor in Dental Anatomy to enter the Graduate School for studies in orthodontics; Dr. William E. Jorden, Instructor in Histology, has resigned; Dr. Milton E. Nicholson, Associate Professor of Public Health Dentistry, has reduced his time in the School in order to enter the Graduate School of Public Health for the degree of Doctor of Public Health; Dr. Paul H. Schmidt, Instructor in Operative Dentistry and Dental Pathology, has resigned; Dr. Walton W. Stoops, Instructor in Histology, has resigned to enter the Army Dental Corps; Dr. William R. Tamblyn, Instructor in Anatomy and Dental Anatomy, has resigned to enter the Air Force Dental Corps; Dr. John William Bailey has been appointed Instructor in Clinical Operative Dentistry; Dr. George E. Sweeney has been appointed Instructor in Clinical Operative Dentistry; Dr. Ralph E. Olean has been appointed Instructor in Dental Anatomy and Operative.

Drs. C. W. Hagan, Mollie D. Foster and M. L. Binstock attended the meeting of the American Academy of Pedodontics, June 28 and 29, Minneapolis.

Mr. H. V. Churchill, who has been Chief of the Analytical Division of Aluminum Research Laboratories and Chief Chemist of Aluminum Company of America since 1919, retired on June 30. Mr. Churchill is known in dental circles as one of the independent discoverers of fluorine as the cause of mottled enamel. His findings were first formally presented in a meeting of the Pittsburgh Section of the International Association for Dental Research, May 18, 1931.

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TEMPLE

A postgraduate course in "Mouth Rehabilitation" has been announced by the Division of Postgraduate Studies at the School of Dentistry. The course will be under the direction of Dr. Louis Alexander Cohn, New York City, and will be offered from January 21 to January 26, 1952. This will be a concentrated week of lectures and clinical demonstrations on the art and science of mouth rehabilitation. Many of the techniques and instruments to save time for the operator, technician, and patient will be demonstrated and applied to practical cases. The course will be limited to twenty persons. The fee will be $200.00.

Applications and further details may be obtained from Dr. Louis Herman, Director of Postgraduate Studies, Temple University School of Dentistry.

OHIO STATE

The College of Dentistry of Ohio State University at Columbus dedicated a new dental building on May 15. The ceremony was part of a three-day Post-College Assembly dedicating the new $15,500,000 university Health Center. The dental building is of four-story construction and equipment with more than 200 dental chairs; it contains separate clinics for dental hygiene, postgraduate study, and orthodontics.

The College will offer postgraduate courses during the Fall in the following subjects: partial denture prosthesis, oral pathology, oral surgery, full denture prosthesis, periodontics, X-ray, and Air-brasive technic. The above will be presented beginning in late October. Information and applications may be secured from the Postgraduate Division, H. B. G. Robinson, Director, College of Dentistry, Ohio State University, Columbus 10.

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SOCIETY HONORS J. P. MORRISON

Last May, the Mount Carmel Dental Society held a testimonial dinner in honor of Dr. Joseph P. Morrison on the occasion of his having practiced dentistry for over 50 years.

Dr. Morrison was graduated from the Pennsylvania College of Dental Surgery in 1900. He is still conducting his practice. He has one son, James, a dentist; another son, a dental laboratory technician, and a daughter, a dental hygienist. Another daughter, now deceased, also was a dental hygienist.

Dr. Harry L. Logan, president of the local society, made the presentation and was the main speaker. Other speakers included Dr. Paul Schneider, a past president of the society; Dr. Miles Zimmerman, secretary of the Pennsylvania State Dental Society; Dr. John M. Konopka, president of the Schuylkill County Dental Society; Dr. Robert M. Warne, treasurer of the Schuylkill society; and Dr. Naysh Brennan, of the Schuylkill society.

Dr. Robert M. Warne, Dr. Harry L. Logan, Dr. Joseph P. Morrison (receiving presentation); Dr. Paul Schneider; and Dr. Miles Zimmerman

THE NEW BOOKS

ORAL REHABILITATION. By Jerome M. Schweitzer, B.S., D.D.S. 1164 pages and 1120 illustrations. Price $20.00. St. Louis: The C. V. Mosby Company, 1951.

This large volume is a major study of the temporomandibular articulation and its dental relationship. It covers dental occlusion and describes the several techniques for full oral rehabilitation.

The first thirty-five chapters (about 850 pages) include a well known compilation of quotations from a large number of writers on the anatomy, function, lesions and derangements of the temporomandibular joint. The author gives his own conclusions at the end of each chapter. Several chapters are devoted to a review of the facial neuroses and otological symptoms alleged to be associated with derangement of the joint.

The two chapters that deal with occlusion and mandibular position are important reading and are an excellent nucleus for further study. The references listed at the end of the latter chapter number seventy-two. This profuse bibliography is fairly typical of the first two-thirds of the volume. Two more chapters deal with hypoplastic, eroded and abraded teeth and the habit neuroses of occlusion, such as bruxism. An excellent survey is then given of the dynamic relationship of the teeth, together with an evaluation of abrasion and lack of incisal balance in the natural dentitions of many patients.

The chapters that relate to types of bites in human dentitions stress particularly the treatment for the troublesome Class 11 (Angle) cases with closed bite. They are well demonstrated by case histories. The author rightly stresses that a thorough investigation should be made of what is normal intermaxillary freeway space for a patient with apparently abnormal occlusion before opening of the bite is attempted.

The last third of the book begins with the indications and contra-indications for occlusal reconstruction. These chapters describe the progress of reconstruction by case histories from the author's practice. He then discusses the co-ordination of natural occlusion by selective grinding, using a central bearing point procedure, that deserves to be recommended. The use of splints, metal and acrylic, is described in relation to opening the bite, and for the purpose of temporary protection and use while permanent reconstruction proceeds. This seems an excellent procedure.

The cases that illustrate fixed and removable bridgework are good. They demonstrate failures as well as successes in bridgework and some interesting methods of combining splints and pontics.

In the last chapters, Schweitzer describes the simpler, or what he calls, the functional technique for occlusal reconstruction, and the anatomical reconstructive techniques, with clarity.

The methods are all illustrated with complete case histories which make them easily understandable.

The reviewer feels that the author has made a real contribution to restorative dentistry. He brings together and edits an immense amount of research on the problem and discusses it from the practical viewpoint of the experienced clinician. On the whole, the volume includes excellent illustrations except for many of the intra-oral radiographs. It is possible that a subsequent edition might have better organization of the material and it would be more readable if it were published in at least two volumes. Some condensation could be made without detracting from the worth of the book.

—CHARLES B. WALTON,
Pittsburgh.

(Dr. Walton is Associate Professor of Ceramics, School of Dentistry, University of Pittsburgh.)

ANESTHESIA IN DENTAL SURGERY. By Sterling V. Mead, D.D.S., M.S., B.S., F.A.C.D. 2nd edition; 648 pages with 212 illustrations. Price $12.50. St. Louis: The C. V. Mosby Company, 1951.

Mead, in his second edition, makes a complete survey of anesthesia in dental surgery. Both regional and general anesthesia are covered in a smoothly flowing matter-of-fact style that not only makes for easy reading but also definitely reflects the extensive knowledge and background of the author.

Particularly gratifying are the chapters on regional or local anesthesia. When it is considered that regional anesthesia is by far the most widely used in dental surgery, this coverage is justified. He includes an excellent review of the anatomy of the head and neck, the physiology of local anesthesia, and the pharmacology of the various drugs. All too often authors take their readers' knowledge of anatomy and other basic sciences for granted. Mead has not made this mistake.

The author has utilized a style sequence for his chapters on techniques which is outstanding. He discusses the purpose of the injection, anatomic relations, armamentarium, techniques, and structures anesthetized in a well organized correlated manner.

General anesthesia is by no means neglected, and Mead has thoroughly discussed each individual agent in regard to pharmacological actions and techniques of administration. The stages and signs of anesthesia for each agent

are discussed separately. Each chapter closes with an outlined brief of the indications, contra-indications, advantages and disadvantages of each general anesthetic drug. This outline is excellent for students as a source of reference.

The last two chapters are devoted to unfavorable reactions, complications, emergency measures, and resuscitation. These two chapters, while also well done and containing a wealth of material, are not equal to the rest of the book.

Mead's second edition is an excellent text for undergraduates and graduate students and offers a ready, easily accessible source of reference material for the busy general practitioner and specialist in anesthesia and oral surgery.

—LEONARD M. MONHEIM,
Pittsburgh.

(Dr. Monheim is Professor of Anesthesia, School of Dentistry, University of Pittsburgh.)

ORAL PHYSIOLOGY. By the late John T. O'Rourke, B.S., D.D.S., Sc.D. and edited by Leroy M. S. Miner, M.D., D.M.D., Sc.D., Dr. P.H. 333 pages. Price $5.00. St. Louis: The C. V. Mosby Company, 1951.

Although this book is entitled *Oral Physiology*, its scope is much more limited in that it deals mainly with mastication and its relation to other bodily functions. Other aspects of the function of the oral cavity and its associated structures are either omitted or touched upon only lightly.

The subject of mastication as a physiological function, and its relation to the general well-being of the individual, is neglected entirely or treated only superficially in most text books of physiology, and even in many dental curricula. For this reason the importance of efficient mastication of food is generally not fully recognized, either by the public at large or by those engaged in the health professions. It is gratifying, therefore, to see this topic given a position of prominence in this small volume. This book, written by the late Dr. O'Rourke and edited by Dr. Miner, brings together for the first time imposing evidence from numerous sources in support of the thesis that proper mastication is essential, not only for the complete enjoyment of food, but for the adequate digestion and assimilation of the ingested foods as well. A corollary of this, of course, is that in order to attain efficient mastication one must be in a state of optimum dental health.

The discussion is opened with a brief review of the present prevalence of dental disease, and is followed by a short chapter on the chief function of the mouth, which is the comminution of food. The purposes and mechanics of mastication, in both man and domestic animals, are then thoroughly considered in the next two chapters. Here, the contributions of the muscles of mastication, the tongue, the palate, the lips and cheeks, the gingivae, and the temporomandibular articulation, to effective masticatory movements are treated in detail. Differences in masticatory requirements of the carnivora, herbivora and omnivora are pointed out. There then follow chapters on the relation of mastication to deglutition, to the function of the alimentary tract, to such sensations as taste and smell, to childhood and old age, and to the oral secretions. Factors which interfere with normal mastication and the adaptations made to deficient mastication are dealt with in the next two chapters. The book concludes with a discussion of some of the nutritional implications of mastication and the relation of the physical characteristics of the diet to the dental and periodontal tissues.

It is encouraging that the authors have tried to relate, wherever possible, the function and the results of mastication to the physiology of the organism as a whole. The importance of masticatory function to the entire body economy is well presented and should leave no doubt in anyone's mind of the biological significance of a sound dentition. The numerous documentations lend authority to the statements in the text, although, unfortunately, there are some instances in which unsupported controversial statements are found. This tends to weaken certain parts of the argument somewhat, since, in such cases, it is difficult to determine whether the conclusions are based on experimental results or are mainly the author's own conjectures. Nevertheless, the collected evidence is sufficiently impressive to disprove the statement (said by Dr. Miner in the Preface to have been made by a certain Professor of Medicine) that "Teeth are trivial." The extensiveness and diversity of the material contained in this book make it of value not only to dental teachers and practitioners, but also to all others in the health professions. The many references listed at the end of each chapter will be an aid to research workers and others interested in consulting the original reports. The short and rather incomplete index, however, will probably prove to be of only limited usefulness to the reader.

—S. WAH LEUNG,
Pittsburgh.

(Dr. Leung is Associate Professor of Physiology, School of Dentistry, University of Pittsburgh.)

ACCEPTED DENTAL REMEDIES—1951. Council on Dental Therapeutics, American Dental Association. 16th edition. 222 pages, with general and manufacturers' index. Price $1.50. Chicago: ADA, (222 East Superior St., Chicago 11, Ill.), 1951 (January).

Once again the Council comes through with a useful and handy reference book. *Accepted Dental Remedies* should be in every dentist's office. Many important changes have been made as to classification of products. Past editions of the book may not be in agreement with the 1951 issue; thus, to keep well informed of the latest and up-to-date information, on

therapeutic agents, the new issue should be relied upon. The issue is well indexed and should provide a ready and handy reference for hasty and instantaneous use. The chapter on the symptoms and treatment of acute poisoning include some of the newer drugs now in use by the dentist. A lengthy list of bibliographical references is conveniently available for further study if so desired. The chapter on nutritional factors contains a handy reference of vitamins, their dosage, and gives contents of some commercial tablets. The chapter on the new formulas is useful for general practice, in oral surgery, and prosthetic dentistry. The information on antibiotics is timely and up-to-date.

This reviewer heartily recommends *Accepted Dental Remedies* as a time saver and handy reference for the latest information on the newer drugs.

—WALTER S. WEISZ,
Pittsburgh.

KNOW YOUR TEETH. By Walter Neal Gallagher, D.D.S., Lt.-Comdr. USN-DC. 81 pages. Price $2.00. New York: Exposition Press (386 Fourth Ave., New York 16), 1950 (March).

This is a book designed for lay use. According to the sub-title and the back flap, this book fills a need "for an up-to-date reliable guide for laymen on the care of the teeth and the mouth," using a question and answer approach in covering every phase of dentistry. However, in dealing with the general public, it has been this reviewer's experience that answers should be more general and not too specific or definite. For example, where the question is what to do when a tooth receives a blow, the author recommends a waiting period of six to eight weeks. No mention is made of the fact that there may be a fracture or an exposure which might require the services of a dentist. Thus, particularly on all questions of diagnosis, it should be repeated that the dentist should be consulted. The reviewer feels that controversial issues should be avoided in a book of this kind or at least presented in such a way that the answer will be in agreement with the consultant dentist. Another instance where the author should have generalized is his answer to the question of when orthodontic service should be started. His answer is at "twelve years of age." We all know that a better service can be rendered to some patients if orthodontia were started earlier than that age.

Far too many dental terms and too much scientific material are used to be understood by laymen. The material is more encyclopedic than informative. It will be more suitable for the student or young dentist than for the lay public. Being indexed, a ready answer may be secured on a specific question commonly asked. However the student and young dentist should be cautioned not to accept the author's views as the final diagnosis on certain controversial issues such as the reviewer describes.

This reviewer does not recommend this book for lay use for these obvious reasons. The Council on Dental Health of the American Dental Association has available better material that avoids or evades some of these controversial subjects.

—WALTER S. WEISZ,
Pittsburgh.

CLASSIFIED

(For rates, write Business Manager, 217 State St., Harrisburg, Pa.)

For Sale: Weber equipment for complete dental office—five years old. For details write: PENNSYLVANIA DENTAL JOURNAL, Box 105, 217 State Street, Harrisburg, Pa.

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DEATHS

BAILEY, Harry W., Wellsboro; School of Dentistry, University of Pennsylvania, 1900; died February, aged 75.

BRITTON, Louis, Philadelphia; Pennsylvania College of Dental Surgery, 1894; died July 27, aged 76.

CLOSE, Hugh W., Philadelphia; School of Dentistry, University of Pennsylvania, 1912; aged 60.

CREASY, James I., Berwick; Pennsylvania College of Dental Surgery, 1895; died March 24.

CRUMBAKER, Harry E., Altoona; School of Dentistry, Vanderbilt University; died April 26.

DUNPHY, Patrick, Philadelphia; died January 21.

DUNWOODY, Jesse E., Upper Darby; School of Dentistry, University of Pennsylvania, 1888; died September 21, 1950, aged 88.

FAHEY, Edward V., Pittsburgh; Duquesne University, B.A.; School of Dentistry, University of Pittsburgh, 1931; died August 15.

GALLAGHER, Paul V., Bethlehem; Medico-Chirurgical College of Philadelphia, 1916; died February 13.

HESS, Samuel S., Bloomsburg; Philadelphia Dental College, 1899; died May 26, aged 77.

HIRTLE, J. Evan, Bath; born in Nova Scotia, coming to the United States at age of 20; graduate of Kutztown Normal School; public school teacher until entering dental school; School of Dentistry, University of Pennsylvania, 1911; died June.

JOHNSON, Miles L., Uniontown; Philadelphia Dental College, 1898; died January 24, aged 79.

JOHNSON, Herbert T., Clairton; School of Dentistry, University of Pittsburgh, 1924; former instructor at University of Pittsburgh; active in civic affairs; veteran of World War I and took prominent part in veterans affairs; former Clairton city councilman and president of the school board; died June 8, aged 53.

JONES, Claude W., Corry; Pittsburgh Dental College, Western University of Pennsylvania, 1908; died December 28, aged 65.

LONG, Clyde R., Smethport; School of Dentistry, University of Pennsylvania, 1913; died December 27.

MANON, Joseph W., Charleroi; Pennsylvania College of Dental Surgery, 1897; died January 24, aged 82.

MARKUS, Moe K., Philadelphia; School of Dentistry, University of Pennsylvania, 1923; former professor of orthodontics, University of Pennsylvania; died June 27.

MENTZER, Edmund H., Philadelphia; Philadelphia Dental College, 1900; veteran of Spanish-American War; first president of North Philadelphia Dental Society; organizer and past president of Kensington Lions Club; died July 10, aged 77.

MOYNIHAN, Francis W., Philadelphia; School of Dentistry, University of Pennsylvania, 1918; died January 10.

MULLEN, Adam W., Philadelphia; Philadelphia Dental College, 1907; died February 20.

MUSPRATT, Walter L., Philadelphia; Philadelphia Dental College, 1900; died April 18.

McCONNELL, Joseph W., Clairton; Pittsburgh Dental College, Western University of Pennsylvania, 1901; died April 1, aged 80.

McCLUNE, James H., DuBois; Baltimore College of Dental Surgery, 1905; died January 9, aged 70.

McGINNIS, Vincent D., Manoa and Philadelphia; School of Dentistry, Temple University, 1934; died July 6, aged 39.

McHUGH, William J., Freeland; died March 22.

McKEE, W. G. S., Pittsburgh; School of Dentistry, University of Pittsburgh, 1925; head of Department of Oral Surgery, St. Joseph Hospital; flying enthusiast; major in Civilian Air Patrol; founder and a first president of Seaplane Owners Association; member of Pilots Council and Aero Club; past president of South Hills Branch of Odontological Society; died July 25, aged 50.

SHOEMAKER, Edwin, Philadelphia; School of Dentistry, University of Pennsylvania, 1912; died May 4, aged 63.

SMITH, Chester E., Philadelphia; School of Dentistry, University of Pennsylvania, 1911; died February 23.

TRABAND, Albert W., Philadelphia; Pennsylvania College of Dental Surgery, 1907; died December 16.

WALKER, Slater R., Pittsburgh; Geneva College, varsity football player; School of Dentistry, University of Pittsburgh, 1912; active in community sports events; died July 20, aged 64, of a heart attack.

WALKER, Ernest S., Tamaqua; Ohio College of Dental Surgery, University of Cincinnati, 1904; died April 6, aged 77.

WEITZEL, Henry M., Shippensburg; Baltimore College of Dental Surgery, University of Maryland, 1932; died April 25, aged 43.

WELLS, Woodley R., Philadelphia; School of Dentistry, University of Pennsylvania, 1925; died May 6, aged 54.

WINTER, Gordon R., Philadelphia; Wyoming Seminary; School of Dentistry, University of Pennsylvania, 1919; served in U. S. Navy, World War I; practiced in New York City and Binghamton; held internships, residencies, and staff positions in several New York and Philadelphia hospitals; assistant professor of oral. medicine, School of Dentistry, and Graduate School of Medicine, University of Pennsylvania; since 1950, professor of oral diagnosis, Temple University School of Dentistry; died July, aged 64.